

MATH 517 GRADUATE ALGEBRA I

İzzet Coşkun, MWF 10:00-10:50 p.m.

SEO 423, coskun@math.uic.edu

This course is a continuation of MATH 516. We will discuss field, Galois theory, commutative and homological algebra.

Course webpage: <http://www.math.uic.edu/~coskun/math5172015.html>

Venue: Taft Hall 309

Office hours: MWF 9:00-10:00 and by appointment in SEO 423.

Text: The text book for the course is Paolo Aluffi, Algebra: Chapter 0, GSM 104, American Mathematical Society, 2009. Some other good references for an introductory course in algebra include

- Serge Lang, Algebra, Addison Wesley, 1995.
- I.N. Herstein, Topics in Algebra, John Wiley & Sons, 1975.
- Dummit and Foote, Abstract Algebra, John Wiley & Sons, 2004.

Prerequisites: MATH 516 or equivalent.

Requirements: There will be weekly homework. Homework is a very important component of this course. It will count for 50 % of your grade. No late homework will be accepted. You may collaborate on the homework problems, but you must write your own solutions and properly acknowledge any help you receive from others. There will be a take home midterm counting for 20 % of your grade and a take home final counting for 30 % of your grade.

Topics: The following is a tentative list of topics that will be covered in the course. The chapter numbers refer to the course text book.

Jan 12	VII.1
Jan 14	VII.1, VII.2
Jan 16	VII.2
Jan 19	No Class MLK Day
Jan 21	VII.3
Jan 23	VII.3, VII.4
Jan 26	VII.4
Jan 28	VII.5
Jan 30	VII.6
Feb 2	VII.7
Feb 4	VII.7
Feb 6	VII
Feb 9	VIII.1
Feb 11	VIII.2
Feb 13	VIII.3
Feb 16	VIII.4
Feb 18	VIII.5
Feb 20	VIII.6
Feb 23	VIII
Feb 25	VIII
Feb 27	IX.1
Mar 2	IX.2
Mar 4	IX.2
Mar 6	IX.3
Mar 9	IX.4
Mar 11	IX.5
Mar 13	IX.6
Mar 16	IX. 6
Mar 18	IX.7
Mar 20	IX.7
Mar 23	No class: Spring Break
Mar 25	No class: Spring Break
Mar 27	No class: Spring Break
Mar 30	IX.8
Apr 1	IX.8
Apr 3	IX.9
Apr 6	IX.9
Apr 8	IX
Apr 10	Comm. Alg.
Apr 13	
Apr 15	
Apr 17	
Apr 20	
Apr 22	
Apr 24	
Apr 27	
Apr 29	
May 1	